LOGGED BY	BEGIN DATE	COMPLETION DATE	BOREHOLE LOCATION (Lat/Long or North/East and Datum)	HOLE ID
M. McKee	1-2-08	1-3-08	N2120825.768 / E5997527.104 (NAD83)	DSB-R4-PZ-D
DRILLING CONTRACTOR			BOREHOLE LOCATION (Offset, Station, Line)	SURFACE ELEVATION
Gregg Drilling and Testing, Inc.			Offset 9ft L Sta 50+15 SB Alignment	9.867 ft (NAVD88)
DRILLING METHOD			DRILL RIG	BOREHOLE DIAMETER
Mud Rotary			Fraste Multi-drill (truck)	5 in.
SAMPLER TYPE(S) AND SIZE(S) (ID)			SPT HAMMER TYPE	HAMMER EFFICIENCY, ERi
MC (2.4"), SPT (1.4"), Grab, Shelby (2.87"), Pitcher (2.87")			Automatic, 140 lbs., 30-inch drop	76.2%
BOREHOLE BACKFILL AND COMPLETION			GROUNDWATER READINGS DURING DRILLING AFTER DRILLING (DATE)	TOTAL DEPTH OF BORING
2" dia. Standpipe Piezo Screened 40.0 to 50.0 ft			1.8	98 ft

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	0		2" ASPHALT CONCRETE over 8" UNREINFORCED CONCRETE.												
	1		~2" 3/4" GRAVEL (GP), angular. [BASEROCK]		S1										
7.87	2		Poorly graded SAND with CLAY (SP-SC), loose, dark gray, moist, fine. [FILL]		S2	7 5 7	12	89							
	3														
5.87	4		CLAYEY SAND (SC), very loose, olive gray, very moist, fine, with pockets of reddish brown fine gravel and medium fine SAND (chert fragments).		S3	1 1 1	2	17							
	5				S4	2 1 1	2	89							
3.87	6														
	7		Fat CLAY (CH), very soft, gray to olive gray, very moist, trace SILT. [BAY MUD]		S5	0 0 0	0	67							
1.87	8														
	9														
-0.13	10														
	11		Grades with frequent pieces of decomposed wood (up to 1/16" diameter)		S6	1 1 1	2	100				TV = 0.18, 0.16			
-2.13	12				U7		50 psi	97							
	13		Poorly graded SAND (SP), medium dense, gray to bluish gray, very moist, trace SILT, fine to medium. [MARINE SAND]												
-4.13	14														
	15				S8	1 5 13	18	83							
-6.13	16		SANDY Lean CLAY (CL), soft, bluish gray, wet, SAND is fine, with pockets of fat CLAY. [SANDY BAY MUD]												
	17														
-8.13	18														
	19		19.0', shell fragments.		S9	0 0 1	1	89							
-10.13	20		Poorly graded SAND (SP), dense, yellowish brown, wet, trace CLAY, fine. [COLMA SAND]		S10	6 14 19	33	67							
	21														
-12.13	22														
	23														
-14.13	24				S11	6 13 15	28	100							
	25														

(continued)

Department of Transportation
Division of Engineering Services
Geotechnical Services

REPORT TITLE				HOLE ID
BORING RECORD				DSB-R4-PZ-D
DIST.	COUNTY	ROUTE	POSTMILE	EA
4	S.F.	101	8.3/9.4	163701
PROJECT OR BRIDGE NAME				
Doyle Drive Replacement Project				
BRIDGE NUMBER	PREPARED BY		DATE	SHEET
34-164L	T. Carroll		11-3-08	1 of 4

CALTRANS FORMAT DOYLEDRIVE_ARUPLOGS_11-2-08.GPJ ARUP LIBRARY_CALTRANS FORMAT.GLB 11/3/08

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	25		Poorly graded SAND (SP), dense, yellowish brown, wet, trace CLAY, fine. [COLMA SAND]		S12	10 19 30	49	67							
-16.13	26		Grades very fine, with increase in fines content.												
	27														
-18.13	28														
	29				S13	24 40 40	80	89							
-20.13	30		Grades very dense ~30.5', with some iron-oxide staining.		S14	16 30 50	80	100							
	31														
-22.13	32														
	33														
-24.13	34		Grades fine with 1/4" sub-horizontal seams of iron oxide stained fine SAND noted below 34'.		S15	19 35 45	80	100							
	35				S16	14 32 36	68	67							
-26.13	36		Grades dark yellowish brown with reddish brown mottling.												
	37														
-28.13	38														
	39		Grades very fine.		S17	29 36 50/ 5.5"	86/5.5"	89							
-30.13	40				S18	16 31 47	78	100							
	41														
-32.13	42														
	43														
-34.13	44				S19	23 50/6"	50/6"	100							
	45				S20	13 50/ 5.5"	50/ 5.5"	100							
-36.13	46														
	47														
-38.13	48														
	49				S21	30 24 26	50	100							
-40.13	50		Poorly graded SAND with CLAY (SP-SC), dense, yellowish brown, very moist, fine.		S22	11 18 23	41	100							
	51		With iron-oxide staining.												
-42.13	52														Contact not observed
	53		Poorly graded SAND (SP), very dense, dark gray, moist, fine.												
-44.13	54				S23	32 37 42	79	89							
	55														

(continued)

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Geotechnical Services

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34-164L	T. Carroll		11-3-08	2 of 4

CALTRANS FORMAT DOYLEDRIVE_ARUPLOGS_11-2-08.GPJ ARUP LIBRARY_CALTRANS FORMAT.GLB 11/3/08

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	55		Poorly graded SAND with SILT (SP-SM), dense, yellowish brown to grayish brown, wet, fine.												
-46.13	56														
	57		CLAYEY SAND (SC), medium dense, bluish gray, very moist, very fine, with frequent black specks.												Contact not observed
-48.13	58														
	59				S24	12 14 13	27	100							
-50.13	60														
	61														
-52.13	62														
	63														
-54.13	64		Grades less clayey, with occasional angular coarse SAND.		S25	20 23 18	41	100							
	65														
-56.13	66		Fat CLAY (CH), hard, bluish to greenish gray, moist, trace very fine SAND. [OLD BAY CLAY]												
	67														
-58.13	68														
	69				S26	6 10 13	23	100				PP = >2.25			
-60.13	70														
	71														
-62.13	72														
	73				U27		75 psi	80				PP = 1.0			
-64.13	74		SANDY lean CLAY (CL), stiff, bluish gray, very moist, SAND is fine, with lenses of fat CLAY.												
	75														
-66.13	76														
	77														
-68.13	78														
	79														
-70.13	80		Grades greenish gray to yellowish brown, with iron-oxide staining.		S28	12 14 15	29	100							
	81		CLAYEY SAND (SC), dense, grayish brown, moist, with completely weathered iron-oxide stained sandstone fragments (fine subangular GRAVEL). [COLLUVIUM]												
-72.13	82														
	83														
-74.13	84														
	85														

(continued)

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CALTRANS FORMAT DOYLEDRIVE_ARUPLOGS_11-2-08.GPJ ARUP LIBRARY_CALTRANS FORMAT.GLB 11/3/08

Figure

ELEVATION (ft)	DEPTH (ft)	Material Graphics	Description	Sample Location	Sample Number	Blows per 6 In	Blows per Foot	Recovery (%)	RQD (%)	Moisture Content (%)	Dry Unit Weight (pcf)	Shear Strength (tsf)	Drilling Method	Casing Depth	Remarks
	85		Grades with CLAY lenses.		S29	13 14 17	31	100				PP = >2.25			
-76.13	86		Fat CLAY (CH), hard, bluish gray, moist, with fine SAND, trace reddish brown rootlets, with yellowish brown mottling, SAND is fine.												
	87														
-78.13	88		CLAYEY SAND (SC), dense, brown to reddish brown, wet, SAND is fine to medium.												
	89														
-80.13	90				S30	20 23 18	41	67							
	91														
-82.13	92														
	93														
-84.13	94														
	95														
-86.13	96														
	97				S31	12 20 32	52	100							
-88.13	98		Grades with frequent carbon nodules up to 1/16" diameter, iron-oxide staining starting at 97.5'.												
	99		Borehole terminated at a depth of 98 feet on 1/3/2008.												
-90.13	100		See Boring Record Legend for soil classification chart and key to test data and sampler type.												
	101														
-92.13	102														
	103														
-94.13	104														
	105														
-96.13	106														
	107														
-98.13	108														
	109														
-100.13	110														
	111														
-102.13	112														
	113														
-104.13	114														
	115														

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Figure